

NMP-550 Media Player User's Manual



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1. Introduction

This document describes the ViewSonic NMP-550 Media Player system set up, configuration, and use of Signage Manager Express software.

1.1. Hardware Features

The NMP-550 Media Player is a Full-HD 1080p high definition digital signage player featuring a reliable embedded hardware design and versatile open-standard SMIL programmability.

- Full-HD 1080p hardware decoding of MPEG, H.264, and VC-1 media formats
- Internal 4GB industrial-grade solid-state local storage
- Integrated audio and video output via HDMI
- Supports full POPAI Screen Media Formats Standards profiles S1 to S12, and E1 to E9
- Scala enabled for compatibility with Scala Content Manager
- Includes the easy-to-learn Signage Manager Express configuration utility
- Content authoring via Microsoft PowerPoint (template-based slide show creation)
- Supports advanced device programming via the W3C SMIL open API supported by Adobe, Apple, Microsoft, and Real Networks

1.2. Software Features

Signage Manager Express software for streamlined digital signage management



Signage Manager Express helps you quickly set up and test playback on your digital signage player. Please see the Signage Manager Express User's Manual for operation details. Once you have scheduled your contents, a few clicks of the mouse quickly configures all players across the network simultaneously.

Scala Network Enabled (Scala license required)

Scala Enabled

For industry leading network management, the ViewSonic NMP-550 Media Player is certified to work in a Scala Content Manager networked environment. This provides you with maximum flexibility in a reliable, RISC-based Full-HD signage player.

SMIL Open API for developers

wsc SMIL

The ViewSonic NMP-550 Media Player uses open XML-based scripting language for extremely flexible content presentation and playback control, so that your investments are never obsolete. Using SMIL, the de facto language of multimedia communications, the player operates in the language adopted by professional multimedia products from Adobe, Apple, Microsoft, Real Networks, and others. What this means is quicker, easier, and better integration of your players into your digital signage networks, leveraging the full potential of the player.

1.3. Package Contents







NMP-550 Player Unit

AC Adapter and Cord

Mounting Plate (x2) Screw (x4. not shown)

Software CD









Ethernet cable

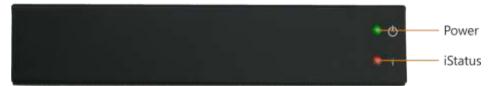
RCA to 1/8" mini-jack audio adapter

1/8" to 1/8" mini-jack audio cable

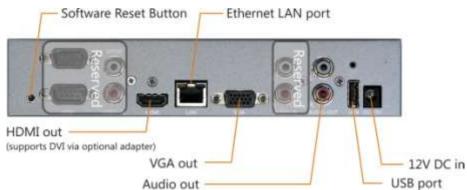
Scala Set up Guide (Quick Guide)

NOT INCLUDED: A USB keyboard is required for system setup

1.4. Front Panel Indicators



1.5. Rear Panel I/O Connections



- 1. Ethernet port for network content update
- 2. USB port for USB content update
- 3. VGA port for analog video output
- 4. HDMI 1.3a connector for digital video and audio combined outputs, or digital video via optional DVI adapter
- 5. Stereo RCA audio output
- 6. 12V DC for power adapter
- 7. S/W Reset button to perform factory reset (see section 2.4)
- 8. Reserved (not enabled): COM, SPDIF, VIDEO-IN, AUDIO-IN L/R

1.6. System Set-Up

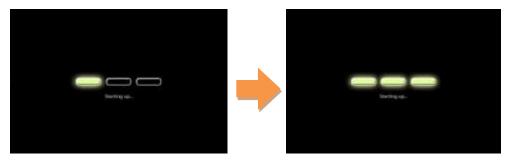
1 Attach a video cable (either VGA or HDMI) to your monitor.

When using the **VGA connection**, your monitor should support XGA (1024x768) resolution or greater. For audio output, you will also need to connect a stereo RCA cable from the NMP-550 to your monitor.

When using an **HDMI connection,** audio is sent *along with* video over the HDMI cable, so no additional cables are required.

Reminder: Please make sure that your monitor has the proper video input selected.

- Attach the AC power adapter to power on the unit. The * green power indicator will immediately light up, followed by the * amber status indicator in approximately **15 seconds**.
- 3 Shortly afterwards, the following progress bar will be displayed on your monitor:



- 4 Player boot process takes approximately **90** seconds to complete. Please wait while the NMP-550 auto-detects the monitor connection, reads the monitor's EDID, and completes its initialization.
- Immediately after boot up, the default presentation stored on the NMP-550 is automatically displayed. The default presentation is a "<u>Video Tutorial</u>" demonstrating how to configure your NMP-550 and use the "<u>Signage Manager Express</u>" software.

This presentation will loop continuously until the user syncs new contents to the NMP-550.

- 6 If you are experiencing difficulties and are not been able to view the default presentation, please refer to "Troubleshooting Tips".
- 7 Otherwise, please follow the instructions in the "<u>Video Tutorial</u>" or continue with "Chapter 2: Configuring the NMP-550 Media Player".

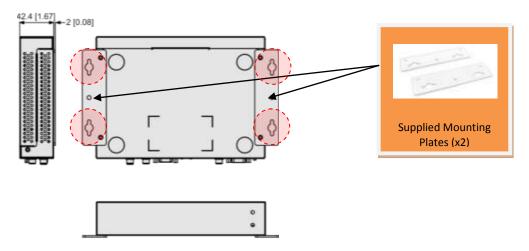
1.7. Troubleshooting Tips

- The front panel indicators do not light up when I plug in power.
- Check if there is power coming through. A green indicator on the AC power adapter block lets you confirm if AC power is available.
- 2 The front panel indicators light up, but no video is displayed on screen.
- Ensure that your video cable (VGA or HDMI) is securely connected. When using an HDMI connection, choose high quality, certified HDMI cables to avoid signal drop outs.
- Check if your monitor is turned-on and switched to the corresponding video input source.
- 3 No sound is heard.
- If using VGA connection, you also need to connect RCA audio cables.
- Check volume (mute) settings on monitor.

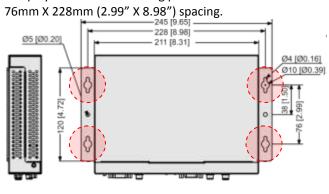
1.8. Mounting provisions

The HMP-500S/505S is supplied with a pair of mounting plates for physical installation.

1. Attach the mounting plates to the bottom side of the player with 2 screws (supplied) on each side.



2. The player with the mounting plates attached can be mounted using 4 screws (not supplied) at 76mm X 228mm (2.99" X 8.98") spacing.



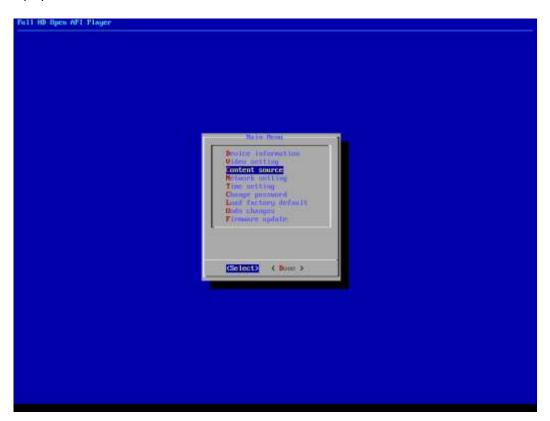


2. Configuring the NMP-550 Media Player

Once the player setup is completed and you have the default presentation running on your monitor, you may then proceed to configuring your NMP-550 media player:

2.1. Attach a USB keyboard to the NMP-550

You must first attach a USB keyboard to the NMP-550 to configure your media player. After connecting the keyboard, please wait approximately 30 seconds for the following "Main Menu" to be displayed.



Navigating the menus

Navigate the menus using <u>arrow keys</u>, <u>space bar</u>, <u>enter key</u>, and <u>numeral keys</u> on your USB keyboard. Use the keyboard <u>arrow keys</u> to highlight menu items, press the <u>space bar</u> to move the star (cursor), and then press <u>enter</u> to confirm (<OK>) or reject (<Cancel>) any changes.

NOTE: If you plan to use your NMP-550 as a standalone media player without a connection to your network, please proceed to Section 2.3 to complete configuration.

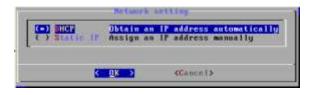
2.2. Connect the NMP-550 to your network

Attach a LAN cable (RJ-45) to your NMP-550 media player.

When connecting the NMP-550 to a network, you will need to assign an IP address from the network. This can be accomplished in one of two ways:

1) DHCP - Automatically assign network IP address

a. Highlight "Network setting" from the "Main Menu" and press "Enter" on the keyboard to select. The following menu will be displayed:



Press "Enter" on the keyboard to initiate "DHCP" auto configuration

b. To identify the assigned IP address, highlight "Device information" from the "Main Menu" and press "Enter to select. The following "Device information" dialog box will be displayed:



The "Device information" dialog box lets you confirm the firmware version, IP address, and current time on the device's clock.

2) Static - Manually assign network IP address

a. Highlight "Networking setting" from the "Main Menu" and press "Enter" on the keyboard to select. The following menu will be displayed:



Using the arrow keys, move down to "Static IP" below "DHCP", press "Space bar" on the keyboard to fill in the star (*) at the Static IP brackets. Then move down to <OK> and press "Enter" on the keyboard to select.

b. The following Static IP dialog box will be displayed:



Using the keyboard arrow keys, highlight "IP" and press "Enter" on the keyboard to modify the IP address.

Repeat for each field which needs to be changed

Use the arrow keys to navigate to <OK>. Once <OK> is highlighted, press "Enter" on the keyboard to save and apply your settings.hanged.

2.3. Video Output Settings

For best quality, set the output resolution to match your display's native resolution to avoid image scaling and blur.

If you are connecting to an LCD TV, the resolution setting is most likely 1366x768, 1280x720, or 1920x1080. If you are connecting a LCD computer monitor, projector, or plasma display, refer to the device specifications for the best matching setting.

Highlight "Video Setting" from the "Main Menu" and press "Enter" on the keyboard to select. The following list of output resolution will be displayed:



Highlight the desired resolution, press the space bar to fill in the star (*), and press "Enter" on the keyboard to select

2.4. Clock and Calendar Settings

Set the correct time zone, time, and date. Daylight Saving (DST) rules can be configured in *Set time zone*.

Highlight "Time setting" from the "Main Menu" and press "Enter" to select. The following menu will be displayed:



Set the local time and time zone accordingly.

2.5. Factory Restore

The S/W RESET button located at the back of the media player can be used to restore factory settings. Use the button to restore default settings or reset an unstable player state.

Performing a factory reset

Warning: This procedure will restore all menu settings to factory default and <u>format the internal</u> <u>storage to factory conditions</u> (all contents will be removed).

To restore factory settings and format the drive:

- 1. Disconnect power cable from the player unit
- 2. Press and hold the S/W RESET button
- 3. Connect the power cable while holding the S/W RESET button until *status light flashes* (about 15 seconds)
- 4. Wait while the system drive is being formatted

2.6. Installing Firmware Upgrades

Firmware updates can be performed using a USB flash drive. Please read the release notes carefully regarding the changes that will be made to your player before applying the upgrade

- 1. Obtain the latest firmware and copy it to the root directory of a USB drive
- 2. Power on device and plug USB keyboard to the device to enter menu system
- 3. Follow on screen instructions and select firmware upgrade option in the "Main Menu"
- 4. When instructed, plug in the USB drive to begin firmware upgrade

3. Content Management

For testing videos and player connectivity, please see the *Signage Manager Express Software Manual* for operating instructions.

For setting up the player on a Scala Content Manager Network, please see the *IAdea HD Player Scala Setup Guide*

4. Working with SMIL

The ViewSonic NMP-550 Media Player uses open communications protocols for extremely flexible content presentation and playback control. SMIL-compliance means predictable results across multiple devices, and SMIL's non-proprietary nature means that your investments are never obsolete.

4.1. Introduction

Using SMIL (pronounced "smile"), the de facto language of multimedia communications, the ViewSonic NMP-550 Media Player understands the language "spoken" by professional tools from multimedia powerhouses such as Adobe, Apple, Microsoft, and Real Networks. What this means is quicker, easier, and better integration of your players into your digital signage networks, opening up avenues of software controls and realizing the full potential of your player hardware down the road.







Microso





4.2. Playing a SMIL demo

The demonstration files can be found in the *Software and Documentation CD*.

Step 1: Prepare contents using a PC

Prepare a formatted USB drive (using the "FAT32" file system option). Copy the entire sample SMIL directory with all its content files from *Software and Documentation* CD to the USB drive. Make sure the SMIL directory shows up in the root directory of the USB drive.



Step 2: Upload contents to player

Power up the NMP-550. Booting takes about 60 seconds. When the orange boot indicator lamp goes out, insert USB drive into the USB port to begin upload. All files under the SMIL directory will be copied to the player and the sample contents will begin to play.



4.3. Advanced Customization via SMIL

The NMP-550 utilizes W3C SMIL as the underlying scripting language, which lends well to customization to your project management needs. For resources and community support, please visit www.a-smil.org.

5. **Technical Data**

5.1. **Specifications**

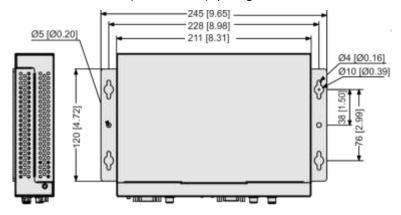
Video format support	POPAI Screen Media Standards S6 (MPEG-1 SIF, 3Mbps CBR) S7 (MPEG-1 480p, 10Mbps CBR) S8 (MPEG-1 720p, 15Mbps CBR) S9 (MPEG-2 480p, 6Mbps CBR) S10 (MPEG-2 720p, 12Mbps CBR) S11 (MPEG-4 AVC, 480p, 6Mbps CBR) S12 (MPEG-4 AVC, 720p, 10Mbps CBR) E4 (VC-1/WMV9, MP@ML, 720p) E5 (VC-1/WMV9, MP@HL, 1080p) E6 (MPEG-2, 1080p, 20Mbps CBR) E7 (MPEG-4 ASP, 480p, 10Mbps CBR)		
Image format support	E8 (MPEG-4 AVC, 720p, 10Mbps CBR) E9 (MPEG-4 AVC, 1080p, 25Mbps CBR) POPAI Screen Media Standards S1 (JPEG 480p baseline) S2 (JPEG 720p baseline)		
Audio codo cumo est	S3 (JPEG 1080p baseline) E1 (PNG 24bpp+alpha, 480p) E2 (PNG 24bpp+alpha, 720p) E3 (PNG 24bpp+alpha, 1080p)		
Audio codec support	POPAI Screen Media Standards S4 (MPEG L2 audio) S5 (MP3 audio, 384Kbps)		
Playback control	W3C SMIL 3.0 (sub-set): multi-zone, wall-clock, sequential, parallel, and exclusive scheduling		
Content management method	LAN – bundled Signage Manager Express USB direct update WAN – OPTIONAL Scala Content Manager 5 Release 5		
Physical I/O connectors	HDMI 1.2 (Full-HD 1080p) DVI-D (via 3rd-party HDMI-DVI converter) VGA RCA audio L/R Ethernet copper 10/100 BASE-T USB 2.0		
Local storage	4GB SLC high performance internal CF card (Holds up to 1.8 hrs of typical 5 Mbps high def. video)		
Accessories	RCA male-3.5mm female audio cable 3.5mm male-male audio cable Ethernet cable Wall-mount bracket VESA mounting kit (Optional)		
Power requirement	12V, 2A DC		
Power consumption	Typical* 5W		
Environmental	Operating temperature: 0 to 40° C (non-condes.) Humidity: t5 – 85% @ 40° C (non-condes.)		
Dimensions	211x153x 43 (mm) (excluding projections)		

	8.3 X 6 X 1.7 (inches) (excluding projections)
Weight	1.14kg 2.5lbs
Safety	UL-approved AC adapters
Certifications	CE/FCC RoHS
Warranty	One-year limited parts & labor

^{*}typical usage when playing 1080P full resolution video

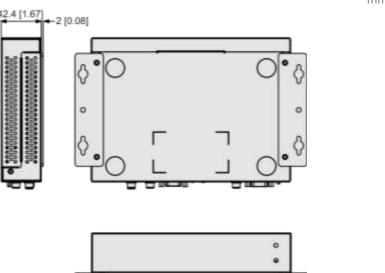
5.2. **Mechanical Drawings**

Drawing shown with included mounting plate accessory, used for attaching the player via 4 screws with 76mm X 228mm (2.99" X 8.98") spacing.





mm [inch]



6. Appendix: FAQ

What should I do if I forgot my password?

In this case, please perform a factory reset.

Use the S/W RESET button located at the back of the media player to restore factory settings. This will also clear the player's password.

Performing a factory reset

Warning: This procedure will restore all menu settings to factory default and <u>format the internal storage to factory conditions</u> (all contents will be removed).

To restore factory settings and format the drive:

- 1. Disconnect power cable from the player unit
- 2. Press and hold the S/W RESET button
- 3. Connect the power cable while holding the S/W RESET button until *status light flashes* (about 15 seconds)
- 4. Please wait while the system drive is being formatted

Why can't I see my video playing in the Signage Manager Express preview window when I drag my file over?

The Signage Manager Express preview window only supports WMV videos and JPEG pictures at this time. To add MPEG-2 support, you must install a separate MPEG-2 codec or DVD player application like PowerDVD. For H.264 video files, the preview window will be disabled. Support for additional codecs on the preview window will be available in a future update of Signage Manager Express.

What is the maximum file size for a single video file?

The maximum video file size for the ViewSonic NMP-550 Media Player is 2GB. We recommend reserving a safety margin to avoid exceeding the limit (i.e. limiting files to 1850MB).

How do I restore the device back to factory defaults?

The S/W RESET button located at the back of the media player can be used to restore factory settings.

To restore factory settings:

- 1. Disconnect power cable from the player unit
- 2. Press and hold the S/W RESET button
- 3. Connect the power cable while holding the S/W RESET button until status light flashes (approx. 15 seconds)

How do I manage the playback of contents?

Playback on a schedule is one of the main functions of the Open Standard HD Media Player. For most users, it can be managed via the easy to use Signage Manager Express software. Scala users may obtain a player license from Scala to manage the media player directly from Scala Content Manager. For advanced customization, there is SMIL compatibility. See the developer's manual for customizing the player with open-standard W3C SMIL commands.

About Signage Manager Express: Unlike the difficulty of programming VCRs from a remote control, the Signage Manager Express software is designed to be simple by using a graphical personal computer interface. Playback contents are laid out visually in a calendar view. Anyone with basic computer skills can quickly create or modify schedules, delivering the right message to the right audience at the right times. Please refer to the Signage Manager Express User's Manual for detailed operations and techniques.

Could the player display Flash or Microsoft PowerPoint presentations?

The player features limited PowerPoint support, but not Flash support.

While PCs can play many formats with varying degrees of success, RISC-based media players are designed to reliably play specific video formats (Please see spec for details). While Microsoft

PowerPoint native files could not play directly on a RISC-based player, the file is converted through other software (i.e. Signage Manager Express) into an image format to be played as an image slideshow.

Why won't some media files play smoothly?

The video data bit-rate may be higher than the recommended bit rate.

The video data bit-rate is the amount of video or audio data used per second to store or play the contents, usually expressed in Mbps (mega-bits per second). Video encoded with excessive bit-rates will not playback smoothly in the media player, likely due to storage i/o bottlenecks. You can try recompressing unplayable video files at lower bit rates using the free and open source Handbrake tool at http://handbrake.fr/. Once you have found the right output settings for size and quality, save them in Handbrake **profiles** for future use. Then you can easily recompress any unplayable files you encounter in the future.

Why won't some media files play at all?

Despite our best efforts to adhere to video format standards, video compression introduces many variables, and sometimes the videos you acquire may not be playable on all players. In this case, you should check your compression settings (bitrate, audio codec, and other parameters) and use a compatible setting.

If the files can play on your PC but not on your player, you should **re-encode** the file to ensure playback. For greatest compatibility, we recommend outputting to the WMV format (VC-1 codec, 3 to 5 Mbps bit-rate) using Windows Live Movie Maker, available free from Microsoft for Windows Vista PCs. Simply drag your file into the Movie Maker timeline, then choose *Save Movie As* a 720p or 1080p video file to begin the re-encode. If you are using Windows XP or creating a video for the NMP-200U, please use any of the available free or commercial video editing products for best results.

The media playback looks different on a PC compared to the media player's screen. (Wrong aspect ratio)

There are 2 major aspect ratios (width-to-height ratios) for video content, but many kinds of displays. If you play 4:3 video on a 16:9 display (or vice versa), a circle becomes oval, and the picture takes on a squeezed or stretched look. To avoid this distorted look, adding black bars are a common technique.

The Network Media Player can be configured to automatically add black bars for certain types of displays. You can set the output resolution in NMP-550's configuration menu to match the **native resolution** of your display.

Some JPEG images cannot be played in the media player.

Progressive JPEG are not supported. Please convert to baseline JPEG for maximum compatibility.

JPEG images can be either of 2 types: baseline or progressive compression. Baseline JPEG offers greatest compatibility, while progressive JPEGs are suitable for web site images. Progressive images are downloaded and displayed "progressively," being rendered more clearly as more data is received over the internet. Devices with local storage such as the CF/Network Media Player are usually incompatible with the latter type. Make sure to save images as baseline JPEG in your photo editor, or resave them as baseline JPEGs using free tools such as Paint.net (http://www.paint.net/).

Does the media player support video streaming?

No, all media files are designed to play from local storage (HDD or CF card).

During content and schedule sync, contents are transferred to player's local storage before being presented on screen. This ensures the best possible presentation and fluid delivery of your video message. Video streaming raises many playback quality issues such as image freezing, blocking, or blue-screens, costing you valuable "air time" and losing your audience's attention.

The media player is not playing. What should I do?

Check the player's messages on the display (OSD, or on screen display) for status information.

Since RISC-based media player usually lack input devices such as keyboard or mouse like PCs, troubleshooting is usually based on user's knowledge and experience with the specific media player. First check the on screen message and stats reports. Bad play list and timing issues are two major causes of playback problems. To determine if the problem is caused by a bad play list, simply delete

the play list and restart player. The player should loop through all media files, indicating a fault with the play list.

If the playback is scheduled to play at specific time, check to see if the device is set to the right time zone on the world clock. When nothing seems wrong, the time zone setting is often the reason the program is not played.

LIMITED WARRANTY

ViewSonic Limited Warranty Terms and Conditions

How the Viewsonic Standard Limited Warranty works:

ViewSonic Corporation ("ViewSonic") warrants its products to be free from defects in material and workmanship during a specified length of time, or "Warranty Period", as indicated below. If a product proves to be defective in material or workmanship during the Warranty Period, ViewSonic will, at its sole option, repair or replace the product with a similar product. Replacement products or parts may include remanufactured or refurbished parts or components. The replacement product will be covered by the balance of the time remaining on the customer's original ViewSonic Limited Warranty. This warranty does not cover any software included with the product.

ViewSonic products are manufactured using new materials or new and used materials equivalent to new in performance and reliability. Spare parts may be new or equivalent to new. Spare parts are warranted to be free from defects in material or workmanship for the remainder of the Limited Warranty Period under proper and/or normal use of the ViewSonic Product in which they are installed.

During the Limited Warranty Period, ViewSonic will, at its sole discretion, repair or replace the defective component parts or the ViewSonic product. All component parts or hardware products removed under this Limited Warranty become the property of ViewSonic. In the unlikely event that your ViewSonic Product has a recurring failure, ViewSonic will, at its sole discretion, provide you with a replacement unit of ViewSonic's choosing that is similar or equivalent to your ViewSonic originally purchased product in hardware and/or performance.

How long the warranty is effective:

ViewSonic warrants that its hardware will be free from defects in workmanship and materials, under proper normal use, and as set forth below:

- Hardware and Power Supplies: One (1) Year
- Accessories, spare parts, and spare kits: Ninety (90) days

The Warranty Period will begin on the date of purchase, and remain effective as specified above. Proof of purchase and/or receipt will be required for all claims purposes.

Exclusions of Warranty:

The following will immediately and automatically render any and all warranties and/or guarantees, including but not limited to the ViewSonic Limited Warranty, as void:

- 1. Any product on which the serial number has been defaced, modified or removed.
- 2. Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, and/or failure to follow instructions as prescribed by ViewSonic.
- 3. Repair or attempted repair by someone other than a ViewSonic Licensed Technician.
- 4. Any damage resulting from shipments not made and/or insured by ViewSonic, and/or shipments made by ViewSonic for which recipient failed to notify ViewSonic of the damage claim within 48 hours upon receipt.
- 5. Removal and/or installation of any components not intended or prescribed by ViewSonic.
- 6. Causes external to the product, such as electric power fluctuations and/or failure.
- 7. Normal wear and tear.
- 8. Damage to, or abuse of, the coating on the surface of the display, including but not limited to cosmetic defects that do not affect functionality.
- 9. Any other cause which is not related to a manufacturer's defect.
- 10. Loss of, or damage to, the covered product due to mishandling, improper packaging by you, alteration, accident, electrical current fluctuations or failure to follow operating, maintenance or environmental instructions prescribed in the covered product's User Manual. In the event that ViewSonic determines, in its sole discretion, that the return product is damaged due to one or more of these excluded causes, the customer will be billed for the cost of repairs.
- 11. ViewSonic will not be responsible for any damage to, loss of, or consequential loss from the inability to use, any programs, data or other information stored on any media or any part of any Product serviced hereunder. ViewSonic makes no representations or warranties whatsoever to keep confidential or secure any data stored on any media or any part of any Product serviced hereunder. ViewSonic will not be responsible for and hereby disclaims any and all liability for damage or loss to software, data, Programs, removable media, consumable, portable docking stations, carrying cases, or non-ViewSonic-branded products such as joysticks, printers, and/or scanners, that may occur as a result of repairs to, and/or by the replacement of any defective product. In order to avoid any and such losses or damages, please make a back-up of any and/or all dates) and Programs before returning your product to ViewSonic for replacement and/or repair(s).
- 12. Image burn-in and/or defective pixels/sub-pixels are not considered a manufacturer's defect. For a complete review of the details regarding the industry standard methodology ViewSonic uses to determine defective pixels/ sub-pixels please visit our on-line Customer Support database at http://www.viewsonic.com/support/qa.cfm?topic=lcd&question=01.

Limitation of Implied Warranties:

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Limitations of Liability:

VIEWSONIC'S LIABILITY IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT. VIEWSONIC EXPRESSLY DISCLAIMS ANY AND ALL LIABILITY FOR DELAYS IN SHIPPING AND/OR ANY RESULTING DAMAGE(S) DUE TO LOSS OF USE FOR ANY AND ALL REASONS. IN NO EVENT WILL VIEWSONIC CORPORATION, AND ANY AND ALL OF ITS PRESENT, FORMER AND FUTURE REPRESENTATIVES BE LIABLE FOR SPECIAL INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES RELATING DIRECTLY OR INDIRECTLY TO THIS AGREEMENT. FURTHER, VIEWSONIC WILL NOT BE LIABLE FOR LOSS OF THE USE OF PRODUCT, LOSS OF DATA, LOSS OF TIME, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF GOODWILL, INTERFERENCE WITH BUSINESS RELATIONSHIPS OR OTHER COMMERCIAL LOSS, REGARDLESS OF WHETHER ADVISE VIEWSONIC IS ADVISED OF OR SHOULD HAVE KNOWN ABOUT THE POSSIBILITY OF SUCH DAMAGES.

How to get service:

- 1. For information on obtaining warranty service, call your ViewSonic dealer/reseller.
- 2. To obtain warranty service, please contact ViewSonic Customer Support for a Return Authorization number (RMA). You will be required to provide
 - A. A copy of the dated sales slip.
 - B. Your name.
 - C. Your address.
 - D. The serial number of the product.
 - E. A description of the problem.
 - F. Mobile and wireless products, customer should provide the user name and the password or disable password protections in order to allow ViewSonic access to the device for the performance of warranty service.
- 3. Bring or ship the product prepaid in the original container, with the associated accessories, to ViewSonic or any ViewSonic authorized service center.
- 4. For additional information or the name of the nearest ViewSonic service center, contact your ViewSonic dealer/reseller or ViewSonic.

NOTE: ViewSonic is not responsible for any returned product without an assigned RMA.

Effect of state law:

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.